

STATE OF CALIFORNIA  
**Budget Change Proposal - Cover Sheet**  
DF-46 (REV 08/17)

Fiscal Year 2018-19	Business Unit 3600	Department California Department of Fish and Wildlife	Priority No. 1
Budget Request Name 3600-016-BCP-2018-GB		Program <b>VARIOUS</b>	Subprogram

Budget Request Description  
Sustainable Funding for Fish and Wildlife

Budget Request Summary

The California Department of Fish and Wildlife (Department) requests \$31 million (\$6.6 million General Fund, \$6.4 million Fish and Game Preservation Fund, \$18 million Motor Vehicle Account) and 98 positions to continue and enhance Department programs that are critical to the conservation of fish and wildlife throughout the State. This proposal also includes trailer bill language to transfer \$26 million from the Tire Recycling Management Fund to the Fish and Game Preservation Fund.

Requires Legislation <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Code Section(s) to be Added/Amended/Repealed	
Does this BCP contain information technology (IT) components? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes, departmental Chief Information Officer must sign.</i>	Department CIO	Date

For IT requests, specify the project number, the most recent project approval document (FSR, SPR, S1BA, S2AA, S3SD, S4PRA), and the approval date.

Project No.                      Project Approval Document:                      Approval Date:

If proposal affects another department, does other department concur with proposal? ☐ Yes ☐ No  
*Attach comments of affected department, signed and dated by the department director or designee.*

Prepared By	Date	Reviewed By	Date
Department Director	Date	Agency Secretary	Date

Department of Finance Use Only

Additional Review: ☐ Capital Outlay ☐ ITCU ☐ FSCU ☐ OSAE ☐ CALSTARS ☐ Dept. of Technology

PPBA Original Signed By: Juliana Morozumi	Date submitted to the Legislature <b>JAN 10 2018</b>
---	---



## A. Budget Request Summary

The California Department of Fish and Wildlife (Department) requests \$31 million (\$6.6 million General Fund, \$6.4 million Fish and Game Preservation Fund, \$18 million Motor Vehicle Account) and 98 positions to continue and enhance Department programs that are critical to the conservation of fish and wildlife throughout the State. This proposal also includes trailer bill language to transfer \$26 million from the Tire Recycling Management Fund to the Fish and Game Preservation Fund. This proposal will resolve an existing \$20 million structural imbalance in the Fish and Game Preservation Fund and allow the Department to continue and enhance critical programs supported by this fund source without a reduction in the current level of service or loss of entire program elements and provide \$31 million for increased actions focused on the following priority objectives:

1. Address Salmon Conservation and Population Declines:
  - a. \$4.9 million and 18 positions to implement a comprehensive salmon and steelhead monitoring and management program in coastal watersheds, the Central Valley, and the ocean and integrate monitoring and outcomes into salmon fishery management and restoration.
  - b. \$1.3 million and 1 position to provide scientific and production support for inland fisheries by improving hatchery production.
2. Marine Fisheries Management and Data Streamlining: \$8.4 million and 38 positions to develop and apply new approaches to fisheries management to ensure sustainable marine fisheries in the face of a changing climate.
3. Law Enforcement Support: \$8.6 million and 16 positions for enhancing law enforcement efforts to combat wildlife trafficking, and expansion of marine enforcement.
4. Managing and Recovering Declining Species:
  - a. Trend Monitoring and Status Reviews \$3.2 million and 9 positions to prepare status reviews of the top 10 percent of endangered species (30 species) each year and support for data collection and monitoring to provide the underlying information for the reviews and assessments.
  - b. Collaborative Conservation and Recovery Strategies \$2.2 million and 8 positions to support a suite of voluntary conservation programs for local governments, private landowners, and conservation organizations across California.
  - c. Statewide Connectivity \$1.1 million and 1 position to update the joint Caltrans and Department assessment "Essential Connectivity" that describes the most important wildlife and fisheries connectivity areas throughout California and will assist with the wildlife and fishery sensitive approach to Chapter 5, Statutes of 2017 (SB 1) investments. While this proposal does not utilize SB 1 revenues, identification of information on road-related wildlife and fish barriers should help streamline the environmental permitting of certain future SB 1 road rehabilitation projects.
5. Administration Support (\$1.3 million, 7 positions).

This proposal responds to the long-running structural imbalance of the Fish and Game Preservation Fund with an ongoing, permanent approach. Notably, for the last several years the Department has consistently discussed this challenge during budget hearings. This proposal begins to implement a funding plan titled "Supporting Healthy Fish and Wildlife Populations in California and Getting People Outdoors: An Expenditure Concept to Invest in Our Natural Heritage for All Californians" (Funding Plan). The Department developed the Funding Plan in 2017 with input from a multi-disciplinary stakeholder advisory group representing sport and commercial fishing, hunting, agriculture, business and environmental groups. This proposal provides the resources needed to begin implementation of the highest priority actions identified by the Department in the Funding Plan (See Attachment 1). This Department's mission is vast and complicated. Funding instability has plagued the Department from at least the 1950s. This problem is universally acknowledged, including by the Legislature in specific provisions of the California Fish and Game Code. This proposal will expand conservation efforts and



continue critical services, improve hunting and fishing and increase participation, connect more Californians to the outdoors, and increase stability and services for the public and the private partners of the Department.

## **B. Background/History**

### **Fish and Game Preservation Fund Structural Imbalance**

Chapter 256, Statutes of 1909, established the Fish and Game Preservation Fund (FGPF) as a repository for all funds collected under the Fish and Game Code and any other law relating to the protection and preservation of birds, mammals, fish, reptiles and amphibia in California. These revenues are generated from the sale of licenses for hunting, recreational and commercial fishing, and numerous special permits.

Revenue from licenses, fees and permits that are not directed by statute to a dedicated account are accounted for in what is known as the non-dedicated FGPF. While revenues in the non-dedicated FGPF have remained relatively stable in the last ten years, expanded statutory mandates have put increased pressure on the fund. In addition to expanded mandates, cyclical budget shortfalls in the General Fund and other funds have resulted in the FGPF absorbing numerous fund shifts over the last 20 years. As a result, expenditure authority has risen to a level substantially higher than annual revenues. In 2018-19, expenditure authority exceeds projected annual revenues by approximately \$20 million in the non-dedicated FGPF. This problem is well-documented. Over the last several years, the Department has disclosed and discussed this issue consistently throughout budget hearings.

### **Investing in Our Natural Heritage**

The Department has completed two stakeholder engagement processes in the last five years that analyzed the need for sustainable funding. The first process was the California Fish and Wildlife Strategic Vision project that culminated in a nonpartisan, multi-stakeholder report to the Legislature in 2012. The second concluded in the fall of 2017; the Department was required through the Budget Act of 2017 to reconvene this stakeholder group and provide a report to the Legislature regarding implementation of the 2012 recommendations. In October 2017, the Department released the updated progress report showing numerous accomplishments in meeting the goals identified in the original report.

In collaboration with the stakeholder advisory group, the Department produced the Funding Plan as a vision for the Department in the future, which is only achievable with long-term sustainable funding sources. It contains four elements, each with numerous actions specified to achieve the stated overarching objectives. The elements are:

1. Expansion of Conservation Efforts (endangered species, habitat conservation, monitoring programs).
2. Improved Hunting and Fishing and Increased Participation (fish hatcheries, angler/hunter recruitment).
3. Connecting More Californians to the Outdoors (lands management, wildlife related recreation, outdoor education).
4. Increased Stability and Services (law enforcement, public outreach, human-wildlife interaction).

This Budget Change Proposal sets the funding plan in motion by providing sustainable funding to begin implementation of this vision.

## **C. State Level Considerations**

In the fall of 2017, the Department produced a plan in collaboration with the stakeholder group that outlines a future vision for the Department that is only achievable with long-term sustainable funding.

The Department has also pursued numerous efforts to align fees and costs, including the establishment of regional conservation investment strategies, mitigation banking, California Endangered Species Act permitting fees, timber harvest plan review, increased commercial fishing fees, scientific collecting



permits, a lands pass program, and indexing to account for inflation. Fee increases alone, however, will not produce a sustainable, comprehensive approach to manage the Department's mission.

This proposal will enjoy widespread support from several different constituencies. With no fee increases, the proposal not only addresses the existing structural imbalance in the FGPF, but provides additional funding for activities deemed high priority by the Department.

The proposal provides funding from transportation-related fund sources with a clear nexus to fish and wildlife. Road networks across the State have fragmented and isolated habitat to the degree that wildlife migration corridors are obstructed and cause large losses. The Department is consistently working at the local level to minimize these impacts that result from transportation corridors that impede fish and wildlife movement. With a few exceptions (e.g. Caltrans contract positions); the Department is not funded to address this workload.

A 2016 UC Davis Road Ecology Center report estimates the cost of wildlife-vehicle conflict to be at least \$225 million annually. This report cites data showing that nearly 6,000 traffic incidents involved wildlife in 2015, with mule deer being the most common (91percent), followed by coyote (6 percent), and black bear (2 percent). The Department responds to traffic incidents involving wounded wildlife and makes arrangements for disposition of the animal as appropriate, such as placing the animal with a private wildlife rehabilitation facility. The Department also works with tribes, which may take possession of an animal carcass involved in a traffic collision, consistent with a memorandum of understanding.

Further, the Department responds to spills caused by vehicles on roadways that may affect fish and wildlife habitat (costs of response to non-oil substances are not covered by Office of Spill Prevention and Response funding). In addition, the Department is tasked with addressing impacts related to vehicle tires, including tires blocking culverts, use of old tires for reinforcing stream banks, and pollution resulting from tire fires near lakes and streams.

Finally, the department has been working with Caltrans to identify and remediate culverts that impede water flows and prevent salmon and other fish from accessing important upstream breeding and reproduction habitat. Jointly we have identified over 6,000 culverts, over-crossings, and other structures that require remediation. While some of the remediations are a requirement of Caltrans, most are not and collectively result in a statewide environmental impact to California's fisheries that is directly attributable to motor vehicle infrastructure.

Legal restrictions on vehicle registration revenues deposited into the Motor Vehicle Account allow for use of these funds for fish and wildlife as mitigation for transportation impacts. Article XIX of the California Constitution allows the use of motor vehicle revenues for *"The research, planning, construction, improvement, maintenance, and operation of public streets and highways (and their related public facilities for non-motorized traffic), including the mitigation of their environmental effects, the payment for property taken or damaged for such purposes, and the administrative costs necessarily incurred in the foregoing purposes."* This proposal is consistent with Article XIX of the California Constitution. Vehicle-wildlife collisions are a leading cause of wildlife mortality in California and managing wildlife populations – from common to endangered species – requires the state to identify and implement mitigation measures for these mortality factors.

Further, the MVA provides an appropriate source of revenue for the Department's work related to prevention of and response to vehicle related wildlife impacts. This includes not only direct impacts of vehicle-wildlife collisions, but also (1) pollution in waterways and other habitats caused by vehicles on roadways and loss of salmon; and (2) other fish habitat upstream of culverts and other water diversion structures associated with roads.

Finally, many times every year wildlife officers respond to motor vehicle collisions, engage in enforcement of the California Vehicle Code, and patrol the State's highways and roadways providing public safety while enforcing all state laws. Wildlife officers issue over 1,000 citations every year for violation of the California Vehicle Code.



## **D. Justification**

### **Fish and Game Preservation Fund Structural Imbalance**

The non-dedicated FGPF is the department's largest single fund source and supports a multitude of program activities spread across all four elements of the Funding Plan. Department functions supported by this fund and their relationship to the Funding Plan are:

- Law enforcement (Element 4 Increased Stability and Services): Support for 429 wildlife officers positioned throughout the state to promote compliance with laws and regulations protecting fish and wildlife resources. Wildlife officers also investigate habitat destruction, pollution incidents and illegal commercialization of wildlife, and serve the public through general law enforcement, mutual aid and homeland security.
- Lands management (Element 3 – Connecting More Californians to the Outdoors): Management of department-owned lands including wildlife areas, ecological reserves, and public access areas to contribute to the conservation, protection, and management of fish and wildlife. Among other things, these activities support hunting opportunities and serve as required match for federal wildlife restoration grant funds.
- Wildlife conservation (Element 1 – Expended Conservation Efforts; Element 2 – Improved Hunting and Fishing and Increased Participation). Activities conducted by regional and field staff related to resource assessment and monitoring, conservation and management activities for game and nongame species, and public outreach related to those species. Funding for these activities also serves as required match for federal wildlife restoration grant funds.
- Fisheries management (Element 1 – Expended Conservation Efforts; Element 2 – Improved Hunting and Fishing and Increased Participation). Development and implementation of policies to address management, protection, and restoration of fish species and their habitats. Also promotes commercial and public recreational angling opportunities. These funds serve as required match for federal funds.
- Fish and Game Commission (Element 4 – Increased Stability and Services): The commission establishes regulations for hunting, sport and commercial fishing, aquaculture, exotic pets, falconry, depredation control, listing of threatened or endangered animals, marine protected areas, public use of department lands, kelp harvest, and acts as a quasi-judicial appeal body.

This proposal will provide \$20 million to continue activities within the functions described above that are currently funded by the non-dedicated FGPF. These activities span all Department functions and the four elements of the Funding Plan. The structural imbalance risks these functions and activities. That is a risk for hunters, anglers, the regulated community, and the public. Following are some examples of these activities and how they relate to the Funding Plan:

- Hunter and angler recruitment, retention and reactivation (Element 2).
- Communication with hunters and anglers to provide timely information on hunting and fishing opportunities throughout the State (Element 2).
- Fisheries management in support of fish stocking in California waterways (Element 2).
- Human-wildlife interaction (Element 4).
- Law enforcement capacity to prevent the illegal take of fish and wildlife, thereby maximizing fishing and hunting opportunities for law abiding license holders (Element 4).
- Native and game fisheries monitoring (Element 1).
- Lands management and improvement of wildlife related outdoor recreation (Element 3).
- Upgrade and modernize marine fisheries data management systems (Element 1).
- Emerging management needs relating to commercial fisheries, including permitting, licensing, and environmental review (Element 2).



## **Investing in Our Natural Heritage**

The Department proposes increasing actions in the following areas utilizing \$31 million of the funds requested in this proposal:

### **Salmon Conservation and Hatchery Production (\$6.2 million, 19 positions)**

#### **Salmon Monitoring and Conservation Support - (\$4.9 million, 18 positions)**

Funding for conservation efforts is dispersed across CDFW, primarily generated from narrow license fees and federal excise taxes; and not geared to the changing future. A true sustainable funding source would expand conservation efforts for the future, adapt for climate change, help get more animals recovered and off the endangered species lists, and modernize the department's conservation programs.

The Department implements several programs and strategies to monitor steelhead and salmon populations across the State to gather data and conduct analyses for fisheries management and conservation purposes. Some of the programs have existed for many years, while others are more recent. A comprehensive monitoring framework is needed that integrates critical information to assist real-time water and fisheries management decisions. These monitoring programs in total are responsible for annual evaluations and management recommendations that support the Pacific Fisheries Management Council, California Fish and Game Commission (Commission), and water management agencies for ten listed salmon and steelhead stocks listed under California Endangered Species Acts (CESA) and Federal ESA (ESA). Data from monitoring of salmon populations in the Central Valley, and coastal waters of California are required for the Department, Commission, and Pacific Marine Fisheries Council to make regulatory decisions on ocean commercial and recreational and inland recreational fisheries.

The Department will implement this aspect in close collaboration and coordination with sister state agencies and other entities with an interest in monitoring to avoid redundancies and to ensure integration and synergies across multiple programs and scientific efforts.

CESA and ESA have listed four and ten at-risk stocks of salmon and steelhead as endangered or threatened, respectively. Seven stocks are listed along coastal watersheds, while three are listed in the Central Valley. Data collected from coastal and Central Valley rivers are used to evaluate the status and trend of each stock and used to determine habitat restoration actions, protection activities, and in the case of the Central Valley, water operations of the Central Valley and State Water projects. All federal and two listed California stocks have approved recovery plans. Data collected by Department monitoring programs are used to evaluate the status and trend of each stock and inform recovery actions.

The monitoring programs are integrated into the goals of the State Water Action Plan as well as habitat restoration and species recovery under Proposition 1. The programs were vital to informing the State's recent drought response activities, will be central to the State Water Resource Control Board's water plans, and will be integrated into upcoming activities planned for under Chapter 852, Statutes of 2017 (SB 5).

Specifically, the Department proposes to augment current funding and staffing for study and assessment efforts focused on improving fishing in anadromous waters and recovery of CESA-listed salmon. The Department specifically aims to secure dependable funding to enhance core existing programs and initiate new programs for monitoring and assessing anadromous fisheries and at-risk stocks along the central and north coasts and Sacramento River Basin. The data collected and subsequent analyses will be used 1) to inform habitat restoration and recovery for state-listed coho salmon and winter-run and spring-Chinook salmon and 2) rebuild salmon, steelhead, and sturgeon fisheries in the Sacramento River and Delta and central and north coast watersheds. Genetic analyses and real-time fish monitoring will be two modern tools integrated with other monitoring activities to evaluate the health of fish stocks and used in habitat restoration, prioritization through Proposition 1 and (SB 5), and other state and interstate activities to promote fisheries and protect at-risk fish stocks.



### **Hatchery Production Support - \$1.3 million and 1 position (\$1 million equipment one-time)**

The Department proposes to augment its Trout and Salmon Hatchery Program to allow for two new innovative technologies at state hatcheries. In the future, hatchery innovation will be the best means to produce sustainable hatchery fish for sport fishing, ensure healthy hatchery stocks, and develop diverse strains of fish to thrive in changing stream and lake ecosystems. During the prolonged drought from 2014 to 2017, basic innovation and technology improvements at several state hatcheries made possible the survival of several hatchery stocks of salmon and trout and captive rearing of some of the most at-risk fish species in the State. This proposal intends to apply even more sophisticated innovations to maximize hatchery efficiency in producing fish stocks, diversifying fish stocks, improve fish survival, and position hatchery facilities to be adaptive to more variable, environmental conditions (e.g., water source supply and temperature, changes in fish diseases, environmental changes in lake and river locations of hatchery stocking).

The first is cryopreservation of male fish milt, which will allow for optimizing mate pairing in spawning of hatchery fish, resulting in healthier and more diverse genetics, improving survival in the hatchery and the wild. Cryopreservation will be applied both to fisheries management in ensuring better trout and salmon stocks through better spawning choices and enhanced spawning options for hatchery programs dedicated to recovering at-risk stocks, such as Coho Salmon on the coast and Winter-run Chinook Salmon in the Central Valley. The second is altering lighting through new LED lighting and black out equipment at hatcheries to enhance the photo-period to provide fertilized eggs year-round, increasing production and efficiency for inland fisheries. Altering and manipulating duration, intensity, and timing of hatchery lighting can be used to alter how, when, and how often hatchery fish spawn.

### **Marine Fisheries (\$8.4 million, 38 positions)**

The Department is responsible for the sustainable commercial and recreational harvest of over 200 fish and invertebrate species under state or joint federal jurisdiction and for maintaining marine biodiversity and ecosystem health along California's 1,100 mile coastline. Marine fisheries are an integral component of the social, cultural, and economic framework of California's coastal and inland communities. In 2016, there were 6,831 licensed commercial fishermen in California and an estimated 4 million recreational fishing trips were taken in ocean waters. In 2015, the commercial seafood industry in California supported over 9,000 jobs adding almost \$400 million to California's economy. In 2015, marine recreational anglers spent \$1.5 billion on fishing activities, adding \$1.3 billion of economic value and support of approximately 16,000 full and part-time jobs (U.S Department of Commerce Tech Memo NMFS-F/SPO-170, Fisheries Economics of the U.S., 2015).

A variety of factors are currently impacting the state's marine resources and the fisheries they support – including climate change, harmful algal blooms, and new and expanding ocean uses (e.g., ocean renewable energy and artificial reefs). At the same time, there is increased public interest and expectations for improved fisheries management and protection of marine habitats and ecosystems that rely on real-time reporting increased flexibility, experimentation and adaptation, and increased coordination and collaboration with stakeholders. The Department's data collection systems are out of date, hampering its ability to effectively manage fisheries and to address these expectations. The Department needs to expand its capacity and expertise for effective fisheries management and to support recreational and commercial fisheries through state-of-the-art data and information technologies. Redirection of existing resources is not possible because they produce essential outputs that are the foundation upon which new efforts will be based.

In 2014, the Department's Marine Region developed and began to implement a Strategic Work Plan to modernize CA fisheries management, proactively address the impacts of a changing climate, identify management gaps, and develop an electronic reporting structure relevant to management. The work plan focused on identifying the framework and resources necessary to effectively manage California's fisheries and marine resources into the future. Effective fisheries management will enable the Department to manage ecologically sustainable and profitable fisheries. This will yield economic benefits to California's coastal communities, support the ever-increasing global demand for fresh seafood, and help preserve California's fishing heritage and biological resources. Implementing the framework developed under the work plan requires the following:



- \$3.2 million to advance innovation and support emerging fisheries. California's fisheries management programs rely on outdated technology, are not sufficiently flexible to adapt to changing ocean conditions, and are not designed to efficiently leverage partnerships to assist with testing and implementation of new approaches. Addressing these shortcomings through increased adaptation and innovation will result in improved fisheries management, integration of climate change considerations into management decisions, and a stronger platform for effective collaboration with partners. This will lead to more efficient and productive fisheries that achieve both sustainability and economic objectives. This effort will add 12 positions to implement the action.
- \$900,000 to develop a centralized electronic data collection, monitoring and reporting structure to manage all marine data under a single platform and facilitate the transition from paper to an electronic system. This will require technological, scientific, and legal expertise to manage the development and integration of data sharing on new electronic platforms with the State's data confidentiality requirements. Automated uploads and QA/QC protocols will create efficiencies and cost savings by eliminating the need to print, mail, and manually enter over 75,000 commercial landing receipts and logbooks annually. This effort will add 4 positions to implement the modernization of fisheries data management systems. The Department will explore partnerships to advance this work.
- \$1.1 million to support environmental review needs relating to new, growing, and diversifying uses of marine habitats and ecosystems including climate change, marine mitigation banking, artificial reefs, desalination, and offshore renewable energy. Increased interest in ocean resources and spatial uses is straining the capacity of the Department to effectively meet its resource stewardship responsibilities. Dedicated staff focused on new and emerging ocean uses will enable the Department to effectively engage in ocean renewable energy projects, develop and implement an artificial reef program, and allow for the integration of climate change into resource management decisions. This effort will add 6 positions to address these needs.
- \$2.6 million to ensure environmentally sustainable jobs and local economies by improving science-based adaptive management of marine fisheries as required by the Marine Life Management Act (MLMA), and in response to California's changing ocean climate. This will move towards meeting expectations for improved fisheries management and protection of marine habitats and ecosystems that relies on real-time reporting, and expectations for increased coordination and collaboration with stakeholders. The updated MLMA Master Plan will be submitted to the Fish and Game Commission in February 2018. Collaboratively developed with stakeholders, this Plan establishes a framework for fisheries management from prioritization of fisheries to the development of Fisheries Management Plans. This proposal will enable the Department to fully implement the framework by adding capacity in fisheries modeling, regulatory development, CEQA, partnerships, and outreach. This effort will add 14 positions to implement this action.
- \$500,000 for the Department to develop and implement a program to ensure whale safe fisheries. The effort will develop a program to evaluate the risk of whale entanglement in real-time and, when necessary, take action to reduce risk, protecting both whales and fisheries. This statewide effort will require ongoing communication and coordination with the commercial and recreational fleets, National Marine Fisheries Service, NGOs, and marine mammal scientists. This effort will require 2 positions to implement.
- \$100,000 for safe operation and maintenance of marine vessels vital for the collection of information that allows sustainable and economically productive fisheries.

#### **Law Enforcement Support (\$8.6 million, 16 positions)**

##### **Wildlife Trafficking Expansion (\$2.8 million and 8 positions)**

Chapter 475, Statutes of 2015 (AB 96) established Fish and Game Code section 2022 making it unlawful to purchase, sell, offer for sale, possess with the intent to sell, or import with the intent to sell ivory or rhinoceros horn. The Budget Act of 2016 provided resources for the Department to enforce these restrictions. Chapter 524, Statutes of 2011 (AB 376) established Fish and Game Code section 2021 making it unlawful for any person to possess, sell, offer for sale, trade, or distribute a shark fin.



These laws require the Department's LED to lead the enforcement effort for trafficking of ivory, rhinoceros horn and shark fin violations. The establishment of these laws is coupled with enforcing the unlawful commercialization of all California native and non-native species being illegally imported, exported and sold.

Wildlife trafficking and commercialization threatens many wildlife species with extinction. A recent example is the plight of the vaquita in Mexico. Wildlife trafficking and commercialization is the fourth largest crime in the world and is tied to organized crime syndicates and terrorism. It is estimated to be a \$19 billion dollar a year black market industry. Since inception of the above mentioned legislation, LED has seized over \$2 million in trafficked wildlife and has investigated approximately 200 wildlife trafficking and commercialization violations. It is anticipated these numbers will increase with additional staff and resources.

The LED has seen an increase in cyber-crimes related to the illegal commercialization and trafficking of wildlife. The Department received approximately 900 tips from our California Turn in Poachers (CalTIP) program, many of which are reporting internet crimes involving the illegal sale of fish or wildlife. As technology continues to advance, investigators are challenged with identifying and learning new techniques to investigate these crimes. The worldwide illegal commercialization and trafficking of fish and wildlife will continue to go unchecked without the addition of Wildlife Officers trained in cyber investigation techniques.

California has some of the largest ports in the nation and is a main conduit for illegal trafficking and commercialization of wildlife. California is one of the biggest producers and consumers of illegally trafficked wildlife in the nation. The LED maintains an extremely busy caseload investigating the trafficking and commercialization of native species such as reptiles, abalone, sturgeon, and bear parts. Wildlife Officers continue to work diligently on this enforcement effort, but continue to see an increase in the trafficking and commercialization of both native and non-native species.

#### **Marine Enforcement Program Enhancement (\$5.8 million and 8 positions, includes \$2 million one-time)**

In the past century, natural and human pressures have increased threats to California's marine ecosystems. In 1999, the State adopted the Marine Life Protection Act (MLPA; Stats.1999, Chapter 1015), one in a long line of statutes and regulations designed to protect California's ocean and estuary waters and the species and habitats found within them. Since then, California adopted and implemented a statewide network of Marine Protected Areas, one of the most significant marine protected areas in the world, and it is understood by everyone involved that adequate enforcement within the marine protected areas is the key element to their success. The LED recently created the Marine Enforcement District to provide an even greater emphasis on marine protection and enforcement statewide. The continued enhancement of the Marine Enforcement District is critical to providing the enforcement resources, staff and equipment, needed to fulfill our marine law enforcement responsibilities.

The LED proposes the addition of staff to supplement existing marine enforcement staff statewide, and one large patrol boat and skiff to be used north of San Francisco. Currently the LED does not have a large patrol vessel off the coast of California north of Berkeley. The addition of this vessel and officers would allow for more long-term patrols in the northern part of the state to ensure compliance of state and federal laws and regulations. This will provide additional protection for the commercial and recreational fishery and marine protected areas.

#### **Managing and Recovering Declining Species (\$6.5 Million, 18 Positions)**

The Legislature has directed the Department to conserve, protect, restore, and enhance endangered and threatened species and their habitats (Fish and Game Code 1755, 2052 et seq) (CESA). In addition, Fish and Game Code (FGC) section 2061 defines conservation as the use of all methods and procedures which are necessary to delist a threatened or endangered species, including research, census, law enforcement, habitat acquisition, restoration and maintenance, and propagation and transplantation. Collectively, these and other statutes set clear expectations for recovering listed species and preventing a need to list additional species under CESA. The Department needs to expand



its capacity to manage and recover listed species and prevent additional listings. Actions that will contribute to these mandates include implementing the following three program areas:

### **Status Reviews Informed by Trends Monitoring (\$3.2 million, 9 Positions)**

The CESA requires the Department to prepare a status review report for each of the threatened and endangered species every five years (FGC 2077), and prepare a threatened and endangered species summary report every third year (FGC 2079). These mandated reviews inform species population trends, identify habitat essential for the continued existence of species, and develop recommended management actions for species recovery. CESA aims to restore threatened and endangered species to an extent that protections are no longer needed. This goal cannot be advanced without knowledge of the population status and trends of California's wildlife.

Current litigation and the statutory schedule for completion of five-year status reviews compel the Department to complete outstanding five-year status reviews. The Department currently lacks the staff to complete the reviews as required by statute. Although stakeholders have the ability to petition the Fish and Game Commission to delist species, stakeholders perceive the absence of 5-year status reviews as a reflection of a lack of interest by the Department in regulating activities that could impact species. Completion of the status reviews serves an important function of communicating to the public the Department's ongoing efforts to evaluate listed species' status and health.

Department staff who compiled previous comprehensive five-year species status reviews and the data informing them (the last of which were provided in 2005 and three individual species reviews in 2011) have been diverted to single-species status reviews in response to increasing numbers of new listing petitions. The 2005 five-year status report took the majority of five positions and five years to compile data and produce. Department regional resource assessment staff, academia and other experts provided data to support the reviews. General Fund reductions over the last 10-15 years eliminated most of the Department's regional resource assessment staff.

CESA currently lists 87 animal and 155 plant species as threatened or endangered. These status reviews rely on species research, and collection and analysis of monitoring data to determine species status and trends. The Department does not have the resources to conduct or inform these reviews currently or on an ongoing basis.

Based on prior workload, the Department requests two Senior Environmental Scientist positions to annually complete 20 percent of three- and five-year status review reports for the 242 listed species. Existing programs contribute to monitoring effectiveness to some extent. However, in the face of limited resources and often wide-ranging species, there is increasing need to strengthen and expand the Department's collaborative monitoring efforts. Protocol development, advanced research, analysis of biological data and coordination of scientists are needed to assess and monitor currently listed species and their habitats to inform development of three- and five-year status reviews.

With collaborative monitoring efforts comes the need for strong data standards and a centralized system for housing and managing data and analyzing results. The needs addressed in the 2015 State Wildlife Action Plan (SWAP), and other strategic planning documents, point to opportunities to improve regional status and trends monitoring standards, data collection and analysis. Improving data collection techniques for compatibility with larger-scale and other existing monitoring efforts will ensure data is integrated and effectively analyzed. During the first two years, staff will focus on documenting existing species and habitat assessment and monitoring efforts, and prioritizing and developing monitoring standards for annual status and trends monitoring for 5 percent of the listed species. The Department is requesting 7.0 positions for monitoring listed species population trends to inform management actions and recovery.

### **Collaborative Conservation and Recovery Strategies (\$2.2 million, 8 positions)**

Half of California's land base is privately owned and 75 percent of California's over 1,000 rare and declining species of invertebrates, amphibians, reptiles, fish, birds, mammals, and plants (SWAP 2015) habitats occur on private land; therefore, species recovery depends on successful voluntary partnerships with private property owners and on ecosystem-based habitat conservation strategies. Working collaboratively with private landowners and stakeholder groups is necessary for slowing or reversing the trend of increasing numbers of threatened or endangered listed species in California.



Many reports from other state and federal programs support findings that voluntary listed species conservation programs must be accessible, streamlined and provide adequate technical assistance to incentivize conservation by private landowners and by stakeholders. The Department is requesting 8.0 positions to develop new conservation agreements and strategies, and implement or expand existing voluntary CESA programs. They include the following programs and the proposed actions:

- 1) The California State Safe Harbor Agreement Program Act (SHA) enacted in 2009 is intended to encourage landowners to manage their lands voluntarily, by means of state safe harbor agreements (agreements) approved by the Department, to benefit endangered, threatened, or candidate species without being subject to additional regulatory restrictions as a result of their conservation efforts. The SHA recognizes protection of these species depends on the cooperation of private landowners and the SHA provides legal protection to landowners who may otherwise resist efforts to make their land hospitable to protected species. Since 2009, the Department has issued eight SHAs and five SHAs are in development. Existing staff and funding has been re-directed as needed to assist landowners in developing and monitoring SHAs. Landowner interest in the SHA Program is increasing, as is the workload. It is anticipated providing new staff resources for outreach, education, and technical and funding assistance for reviewing new SHA Program agreements, establishing monitoring to evaluate the effectiveness and net conservation benefits, and for environmental review would dramatically expand voluntary conservation participation, thereby enhancing the contribution to recovery.
- 2) The Natural Community Conservation Planning Act (NCCP) is a voluntary, broad-based and collaborative ecosystem approach to planning for the protection and perpetuation of listed and non-listed species. There are currently 14 approved NCCPs (includes 6 subarea plans) and more than 20 NCCPs in various stages of planning (includes 10 subarea plans), which together cover more than 7 million acres and will provide conservation for nearly 400 special status species and a wide diversity of natural community types throughout California. New staff resources are needed to assist responsible parties and stakeholders in developing additional NCCPs and implementing 6 near-complete and 14 completed NCCPs in the six inland Regions.
- 3) On September 22, 2016, the Governor signed Chapter 455, Statutes of 2016 (AB 2087) establishing the Department's Regional Conservation Investment Strategy pilot program (RCIS). On July 21, 2017 the Governor signed Chapter 95, Statutes of 2017 (SB 103) which removed the pilot status and sunset date, and expanded participation. This newly established RCIS Program encourages a voluntary, non-regulatory regional planning process that is intended to result in high-quality conservation outcomes and consists of three components: regional conservation assessments (RCAs), RCISs, and mitigation credit agreements (MCAs). While AB 2087 established a fee that will cover some aspects of the RCIS, this proposal will provide funding to fully support the program.
- 4) The Habitat Restoration and Enhancement Act (HREA) of 2014 established a permitting process for landowners, state and local government agencies, and conservation organizations wanting to implement small-scale, voluntary habitat restoration projects across California. Based on applications received to date, it is estimated up to 20 applications a year will be received and staff resources are needed to support the permitting of HREA voluntary restoration projects. This program work would also provide benefits for implementation of similar efforts for coho salmon restoration projects.

In addition to informing existing CESA programs, listed species and habitat conservation strategies informed by the State Wildlife Action Plan and species population trends monitoring will be developed for 5 percent of listed species annually including a public input process.

#### **Provide Wildlife Connectivity (\$1.1 million, 1 position)**

With the passage of SB 1, the Road Repair and Accountability Act in 2017, close coordination with Caltrans will be critical to inform project development and project delivery in an efficient manner that addresses wildlife connectivity and reduces impacts to listed and non-listed species.

As long linear features on the landscape, roads and highways have impacts on wildlife and wildlife habitat that are disproportionate to the area of land that they occupy. In addition to impacts on habitat, highways are sources of road mortality that threaten wildlife populations. Indirect effects on wildlife



include reduced access to habitat due to road avoidance and human exploitation. Transportation infrastructure also undermines ecological processes through the fragmentation of wildlife populations, restriction of wildlife movements, and the disruption of gene flow and metapopulation dynamics.

In 2010, the Department and Caltrans, with a team of consultants, produced a statewide assessment of essential habitat connectivity using the best available science, data sets, spatial analyses and modeling techniques. The goal was to identify large remaining blocks of intact habitat and model linkages between them that need to be maintained as corridors for wildlife. While this tool has provided essential data for road and highway design over the years, the science, data and modeling techniques have progressed and an updated connectivity analysis is necessary to promote efficiency and inform project development that minimizes impacts to wildlife for the future.

The Department requests one position to coordinate a) a landscape analyses to identify “connectivity zones” and use these analyses to advise transportation planners and engineers on mitigation strategies early in the planning process and help solve technical problems, and b) design and conduct monitoring studies to evaluate various mitigation techniques and make adjustments as needed to ensure effectiveness. The Department will coordinate with other appropriate entities such as the Office of Planning and Research and the Strategic Growth Council.

## **E. Outcomes and Accountability**

### **Salmon Conservation and Hatchery Production**

#### **Salmon Monitoring and Conservation Support**

The new permanent and part-time staff assigned along the coast in the Central Valley from Sacramento to Shasta counties in the Central Valley will be part of a Department strategic team to conduct broad actions and use the most modern fisheries scientific tools and technologies and scientific tools to:

- Conduct fish population monitoring in the most vital watersheds along the central and north coast and Sacramento River Basin;
- Advise, coordinate, and evaluate habitat restoration actions in anadromous watersheds essential for recovery of state-listed salmon;
- Advise, coordinate, and evaluate habitat restoration actions in anadromous watersheds essential for sustainable steelhead, salmon, and sturgeon fisheries;
- Systematically deploy cutting-edge scientific tools such as satellite fish tags, real-time monitoring, in-river sonar and infrared, genetic analyses, and satellite imagery to more effectively restore habitat, recovery species, and improve fishing;
- Annually assess and report progress of restoration, recovery, and fishing.

### **Projected Outcomes**

Comprehensive salmon and steelhead monitoring and management

<b>Workload Measure</b>	<b>CY</b>	<b>BY</b>	<b>BY+1</b>	<b>BY+2</b>	<b>BY+3</b>	<b>BY+4</b>
Develop strategic plans for watershed monitoring and assessment for habitat restoration, species recovery, and fishing improvement	0	4	0	0	4	0
Develop strategic plans for technology, genetic and data analyses	0	4	0	0	4	0
Monitor watersheds of key at-risk salmon and steelhead	0	7	7	7	21	21
Monitor watersheds supporting key salmon, steelhead, and sturgeon fisheries	0	5	5	6	16	16



Assessment watersheds for habitat restoration effectiveness	0	0	12	12	13	37
Assess at-risk salmon populations	0	4	4	4	4	4

### **Hatchery Production Support**

The cryopreservation and photo-period modifications at the Department's hatcheries are new and technology and operational improvements. The new Environmental Scientist will be responsible for:

- Managing the contracts for site improvements at the facilities
- Working with hatchery managers and the genetics laboratory to properly preserve genetic stocks of fish
- Utilizing genetic materials and photo-period infrastructure to increase hatchery production, health, and diversity,
- Ensuring hatchery fish being stocked out into the wild are more diverse and resilient to every-changing environmental conditions and stressors.

Progress and assessment reports will be written and publically available via the Department's hatchery website on an annual basis.

### **Marine Fisheries**

The proposal implements key directives of the Marine Life Management Act (MLMA, Fish and Game Code § 7060 et seq.). These include a collaborative and cooperative approach to management, use of the best available scientific and other relevant information, and a management system that is proactive and responds quickly to changing environmental conditions, ocean uses, socioeconomic factors, and to the concerns of fishery participants. This proposal, will result in improved data quality, near real-time data, and the implementation of a transparent and effective approach to fisheries management. Data entry will occur at the docks or on the vessels via electronic reporting. A new publically-accessible web-based portal will be developed that will provide access to current data resulting in increased transparency and opportunities for collaboration.

As guided by the Updated MLMA Master Plan, the Department's Marine Region will develop a biennial work plan that clearly defines the scale and scope of fisheries that will be managed under the updated framework. This approach will integrate fishery modeling, ecosystem considerations, socio-economics and management effectiveness into a transparent management process. The approach will also set guidelines for scaled management based on the mandates of the MLMA so management measures and decision-making can be tailored to match the needs of the fishery with the resources available to implement management measures. Application of the work plan will result in sustainably managed fisheries, ultimately providing sustainably caught California seafood to the global community, increased economic opportunities in California communities, and increased participation that connects more Californians to the outdoors.

The proposal will also result in significant ecosystem and conservation benefits through new marine environmental review and whale risk assessment programs. The expected outcome is sustainably managed fixed gear fisheries with minimal or no marine animal entanglements. Success will be measured by the number of entanglements reported by NOAA and the degree to which management measures impact fishing. New environmental review efforts will develop and implement a Statewide Artificial Reef Plan, develop and apply tools to integrate climate change considerations in resource management decisions, and ensure marine habitats, ecosystems, and fisheries are included in statewide ocean planning/zoning efforts.

### **Law Enforcement Support**

#### **Wildlife Trafficking / Illegal Commercialization of Wildlife**

AB 96 established Fish and Game Code section 2022 making it unlawful to purchase, sell, offer for sale, possess with the intent to sell, or import with the intent to sell ivory or rhinoceros horn. AB 376 established Fish and Game Code section 2021 making it unlawful for any person to possess, sell, offer for sale, trade, or distribute a shark fin. These laws closed loopholes found in other laws and



established enforcement tools for the Department to help combat wildlife trafficking and commercialization violations. The Department has seen an influx of wildlife trafficking and commercialization in both our native and non-native species. The Department has taken a lead in the fight against the trafficking and commercialization of wildlife in California. The Department expects increased reports of violations from the public, which will increase investigations.

Success will show a diminished supply of native and non-native species being unlawfully commercialized. Another measure of success would be decreased reports of wildlife trafficking violations into the State's CalTIP line. Over time, the type of investigations will transition from retail sales to covert, interstate, and international investigations. These covert investigations can be extremely time consuming and expensive; however, the investigation can reveal the supplier and distributors and have significant impacts on stopping the flow of wildlife trafficking violations of our native and non-native species.

The Department follows a statewide official fiscal reporting process and internal standardized fiscal reporting procedures. Funds for this program will have a unique accounting code that will be tracked and monitored by the budget analyst. Monthly reports and statistics will be reported to LED management.

The casework and daily activities associated with the wildlife trafficking and illegal commercialization are recorded and monitored in the form of an Electronic Daily Activity Reports (eDAR). Information captured by the eDAR includes officer, date, times, locations, contacts, warnings, citations, hours worked, and accounting information. Lieutenants and Captains are required to review eDARs for their assigned staff.

### **Projected Outcomes** **Trafficking / Commercialization Projected Outcomes**

<b>Workload Measure</b>	<b>CY</b>	<b>BY</b>	<b>BY+1</b>	<b>BY+2</b>	<b>BY+3</b>	<b>BY+4</b>
Commercial business inspections (includes wildlife trafficking, fish business inspections, internet inquiries)	350	500	700	800	800	800
Wildlife Trafficking/ Commercialization Investigations (including internet trafficking investigations)	200	315	385	385	385	285
Violations found during business inspections (Could be more violations than investigations)	115	172	207	207	207	157
Criminal Actions	60	80	100	100	100	100
Administrative Actions (estimated)	2	5	10	20	20	15
California Turn In Poachers (CalTIP) wildlife trafficking complaints	900	1000	1000	800	800	700

### **Marine Enforcement Program Enhancement**

Enhanced protections to California's Marine Resources through broad reaching legislative mandates like the Marine Life Management Act, Marine Life Protection Act, AB 376 and changes in Federal marine fisheries laws have laid the foundation for new levels of protection for our living marine resources. The implementation of these sweeping marine protection mandates have challenged the LED to provide adequate enforcement to these critical marine enforcement needs.



The LED recently created a new Marine Enforcement District with Wildlife Officers and equipment dedicated to statewide marine enforcement. The LED continues efforts to ensure there is adequate enforcement by allocating equipment and dedicated, well-trained Wildlife Officers to provide on the water protection supporting marine protection mandates. The addition of a new Large Patrol Boat and crew to Northern California will provide a much needed on the water enforcement presence up to the Oregon border. The addition of three new marine enforcement position along the coast will provide assistance to existing staff in high use areas of the state. The addition of new marine enforcement equipment and positions will enhance the LED marine enforcement program and allow a more robust marine enforcement engagement on the water, on the shore and enhanced involvement in marine education and outreach programs.

These additions will result in a fully staffed Law Enforcement Patrol Vessel in the waters off Northern California and new staff in high use areas statewide. The Patrol Boat will provide enhanced recreational and commercial marine fisheries enforcement, enhanced marine public safety, enhanced homeland security and enhanced interaction with non-consumptive marine user groups. Marine Law Enforcement contacts will increase statewide as a result of the new Wildlife Officers. Those increased contacts will initially result in a higher violation rate. Over time, the violation rate should decrease from the law enforcement presence. Overall, the addition of dedicated marine enforcement staff will allow LED to provide the level of marine enforcement support expected from the legislature and the public when new protections are approved and implemented to protect our marine resources.

The Department follows a statewide official fiscal reporting process and internal standardized fiscal reporting procedures. Funds for this program will have a unique accounting code that will be tracked and monitored by the budget analyst. Monthly reports will be generated by support staff and statistics reported to LED management.

The Department's daily activities associated with the Marine Enforcement are recorded and monitored in the form of an Electronic Daily Activity Reports (eDAR) and recorded. Information captured by the eDAR includes officer, date, times, locations, contacts, warnings, citations, hours worked, and accounting information. Lieutenants and Captains are required to review eDARs for their assigned staff.

## **F. Analysis of All Feasible Alternatives**

**Alternative 1:** Approve \$31 million (\$6.6 million General Fund, \$6.4 million Fish and Game Preservation Fund, \$18 million Motor Vehicle Account) and 98 positions to continue and enhance Department programs that are critical to the conservation of fish and wildlife throughout the State. Approve trailer bill language to transfer \$26 million from the Tire Recycling Management Fund to the Fish and Game Preservation Fund.

Cost: \$31 million

### Advantages:

- Additional funding will allow the Department to address an existing structural imbalance within the non-dedicated FGPF.
- Critical programs supported by the non-dedicated FGPF will continue without a reduction in the current level of service or loss of entire program elements.
- Provides a long-term funding solution for programs identified as critical to conservation and management of fish and wildlife.
- Enhance Department programs that are critical to the conservation of fish and wildlife throughout the State.

### Disadvantage:

- This proposal would require \$31 million in authority, including \$6.6 million General Fund.



**Alternative 2:** Approve \$20 million from the Tire Recycling Management Fund to continue activities that are currently funded by the non-dedicated FGPF.

Cost: \$20,000,000

Advantages:

- Would not require additional General Fund.
- The Department will be able to address an existing structural imbalance within the non-dedicated FGPF.

Disadvantages:

- This option would not address the full needs of the Department.
- The Department will be without a long-term funding solution for programs identified as critical to conservation and management of fish and wildlife.

**Alternative 3:** Deny the proposal.

Cost: \$0

Advantage:

- Would not require additional General Fund.

Disadvantages:

- This option would not address the full needs of the Department.
- The Department will be unable to address an existing structural imbalance within the non-dedicated FGPF.
- The Department will be without a long-term funding solution for programs identified as critical to conservation and management of fish and wildlife.

**G. Implementation Plan**

The Department will begin implementation of this proposal in Spring 2018, by initiating recruitment and hiring staff. All hiring offers will be made contingent on passing of the Budget Act. Full implementation of this proposal would begin on July 1, 2018 and/or upon approval of the Budget Act of 2018.

**H. Supplemental Information**

The Department will purchase 16 vehicles, including 13 Code 3 law enforcement vehicles. The distribution for the requested vehicles will be as follows:

- 12 Code 3 law enforcement vehicles for the requested Fish and Game Wardens
- 1 Code 3 law enforcement vehicle for the requested Fish and Game Lieutenant Supervisor
- 3 4x4 pickup trucks for requested Environmental Scientists within the Salmon Resiliency Program

The Department will purchase a patrol vessel and related equipment for its LED.

The Department will also purchase necessary equipment, and enter into contracts for the set-up, monitoring and maintenance of cryopreservation and lighting for its Trout and Salmon Hatchery Program.

While one-time costs are identified in this proposal, the Department has numerous other one-time costs future funding will resolve.



**I. Recommendation**

**Alternative 1:** Approve \$31 million (\$6.6 million General Fund, \$6.4 million Fish and Game Preservation Fund, \$18 million Motor Vehicle Account) and 98 positions to continue and enhance Department programs that are critical to the conservation of fish and wildlife throughout the State. Approve trailer bill language to transfer \$26 million from the Tire Recycling Management Fund to the Fish and Game Preservation Fund. Resources provided in this proposal are from cost neutral fund shifts with other departments (see attached Fiscal Detail Sheets).



# SUPPORTING HEALTHY FISH AND WILDLIFE POPULATIONS IN CALIFORNIA AND GETTING PEOPLE OUTDOORS

*An Expenditure Concept to Invest in Our Natural Heritage for All Californians*

November 2017



## INTRODUCTION

---

The California Department of Fish and Wildlife (CDFW or department) is the steward of California's most precious natural resources. The job of the department is vast and complicated. This document is an internal summary of an expenditure concept to support the department, its mission, and its diverse constituency with sustainable funding for the future. This document makes a planning assumption of a new funding source that generates \$100 million per year for CDFW. This document describes additive work we should be doing in the future together with work we are already doing.

One of the most visited, but ultimately unresolved issues for CDFW is how to provide the department with sustainable financing. It is not a new problem. Since at least the 1950s, countless reports identify funding as the most important problem to solve. The Legislature has spoken too and amended the California Fish and Game Code declaring this problem. More recently, CDFW has completed two stakeholder engagement processes that analyzed the need for sustainable funding. The first process was the California Fish and Wildlife Strategic Vision project that culminated in a nonpartisan, multi-stakeholder report to the Legislature in 2012. The second just concluded. The department was required through the Budget Act of 2017 to reconvene this stakeholder group and provide a report to the Legislature regarding implementation of the 2012 recommendations. In October 2017, the department submitted its progress report to the Legislature with the support of the stakeholder group.

In addition, the department has begun a mission-based budgeting effort that will bring even more transparency to the department's current activities, statutory mandates and funding. This budget effort will be a collaboration with the Department of Finance, legislative staff and stakeholders. Concurrently, the California Law Revision Commission will pause its work to reorganize the Fish and Game Code, and instead, focus on its legislative direction to analyze CDFW mandates and funding. Since 2012, the department has also pursued at least nine separate efforts to align department fees and costs pursuant to SB 1148, including regional conservation investment strategies, mitigation banking, California Endangered Species Act costs for permitting, timber harvest plan review, commercial fishing program costs, scientific collecting permits, a lands pass program and indexing to account for inflation.

We cannot stop here. There is broad consensus that the department needs long-term sustainable funding. California is home to more plants and animals than any other state. With a 1,100-mile coastline, the Pacific Ocean offshore, the Sierra sitting high above the Central Valley, and from the Oregon state line to the Mexico border, California has more biodiversity than most places on the entire planet. However, our state – and the world – is changing rapidly. The climate is changing and affecting this biodiversity, and our population is projected to reach 50 million by 2050. This expenditure concept is responsive to that future.



## WHO GETS WHAT?

---

The four elements of this expenditure concept will produce real benefits for California.

1. If you are a Californian, **you will benefit** from sustainable funding for CDFW that allows the department to **expand conservation benefits and efforts**. Rationale:

While other state agencies' missions involve conservation, CDFW is the state's trustee agency specifically charged with protecting and conserving fish and wildlife and the habitats that they depend upon. Funding for conservation efforts is dispersed across CDFW – primarily generated from narrow license fees and federal excise taxes – and not geared to the changing future. A true sustainable funding source would expand conservation benefits and efforts for the future, adapt for climate change, help get more plants and animals recovered and off the endangered species lists, ensure healthy sustainable fisheries in the ocean and seafood on dinner plates, and modernize the department's conservation programs.

2. If you are a Californian that enjoys hunting or fishing in this state, **you will benefit** from sustainable funding for CDFW that allows the department to **improve hunting and fishing opportunities**, increase participation, and reduce the possibility of future license fee increases. Rationale:

While not the nation's most costly licenses, recreational hunters and anglers must buy a license to hunt and fish in California. They also pay a federal excise tax on hunting and fishing gear that the U.S. Department of the Interior re-distributes to the state wildlife agencies. A more diversified funding approach will help avoid future license fee increases and allow a more holistic and equitable approach to funding and fish and wildlife management. It would also increase CDFW's investments in programs that improve hunting and fishing opportunity and increase participation.

3. If you are a Californian, **you will benefit** from sustainable funding for CDFW that allows the department to **get more Californians outdoors** and moves CDFW to engage with and be relevant for diverse and underserved communities through fish, wildlife and habitat conservation and lands management. Rationale:

CDFW manages 1.2 million acres across the state (about 700 properties) for conservation and public enjoyment of California's diverse wildlife and their habitats. Californians are less connected to the outdoors than ever before. The public's expectation of CDFW to oversee and properly manage our natural resources has increased exponentially – yet the funding necessary to conduct these activities has not. The changing demographic landscape of California demands we think differently about how our public might use and enjoy these properties. Although some of our ecological reserves must be set aside exclusively for supporting critically endangered species, many others could support a variety of uses including providing missing outdoor experiences for youth and disadvantaged communities. Getting more Californians outdoors through hunting, fishing, wildlife viewing (which alone is a huge economic engine) and other recreation will drive increased economic activity. A sustainable funding source can move CDFW to better use and manage these public lands as an asset for people and wildlife. Getting more Californians outdoors creates public health, education and environmental stewardship benefits too.

4. If you are a Californian or you are part of the state's important business and economic engine, **you will benefit** from sustainable funding for CDFW that increases the department's stability and services for the **general public and regulated communities**. Rationale:

Californians pride themselves on being the sixth largest economy in the world, an environmental leader, and having a strong sense of place for all the things that make this state so great from Lake Tahoe and our beaches to so much more. CDFW is literally the state's steward of its incredible natural heritage and biodiversity but also has a complex, important role as a regulator of businesses and industries across the state. An efficient and responsive department is an essential ingredient in the state's commitment to the environment and the economy. Public-private partnerships, improved collaborative scientific capacity, communications and outreach, response to human-wildlife conflicts, and permitting partnerships are all key for transparency, public confidence, and durable but fair regulation. A sustainable funding source would increase the department's stability and services for the public and regulated business communities.



---

## THE FOUR ELEMENTS OF THE EXPENDITURE CONCEPT

In 2016, the department convened over 50 of its top scientists, land managers, conservation planners, deputy directors and executive team to prepare a snapshot of the highest priority funding needs now and in the future. We started with concepts that in turn became tangible program elements and finally resulted in well-defined programmatic investment proposals. In addition, we evaluated the results of the 2012 Strategic Vision process that served as a beacon for the overall direction as expressed by our stakeholders. Finally, we completed a comprehensive update to the State Wildlife Action Plan (SWAP) – now a blueprint for wildlife, fisheries and marine conservation in California – that included a series of companion plans, each of which represents hundreds of hours with stakeholders representing 10 major sectors. Combined these interactions and assessments formed the basis for this expenditure concept, along with reference to similar efforts in Florida and Oregon and prior efforts in California described in the introduction to this document.

This document makes a planning assumption of a new funding source that generates \$100 million per year for CDFW. For comparison, the Oregon Department of Fish and Wildlife (ODFW) completed a similar effort in 2015-16, and that process proposed an Oregon Conservation and Recreation Fund administered by ODFW and funded through an Oregon Income Tax Surcharge or a Wholesale Beverage Surcharge at a minimum of \$86.9 million/biennium in new revenues. A true long-term sustainable funding source for CDFW will result in these benefits to all Californians: (1) expanded conservation efforts; (2) improved hunting and fishing while reducing the risk of future license fee increases; (3) connecting more Californians to the outdoors; and, (4) increasing the department's stability and services for the public and regulated communities. Following are examples within each of the four elements.

### 1. EXPANDED CONSERVATION EFFORTS

#### 30% of Funding

- Provide additional incentives and support for private land owner conservation
- Enhance regional status and trends monitoring of listed species

- Complete candidate species status reviews and develop conservation strategies to support alternatives to species listing
- Improve California Endangered Species Act (CESA) assessment program to gather and analyze species and habitat data statewide to better inform species recovery
- Resume 5-year status reviews for all listed species
- Create a specific recovery program for all listed species and implement
- Fully develop and fund the Safe Harbor Program
- Fund and improve voluntary wetland programs
- Provide policy and fiscal support for Candidate Conservation Agreements
- Integrate species prioritization with new tools like regional conservation and mitigation crediting
- Incorporate the recently updated State Wildlife Action Plan (SWAP) systematically
- Increase and improve species monitoring, habitat assessment and conservation actions for special status species to verify or document states and support SWAP strategies
- Support environmental review needs relating to growing and diversifying uses of marine habitats and ecosystems
- Evaluate, monitor and review marine protected areas and adaptive management as required by the Marine Life Protection Program
- Improve sustainable, science-based adaptive management of marine fisheries as required by the Marine Life Management Act, and in response to California's changing ocean climate
- Advance innovation and support emerging fisheries
- Upgrade and modernize marine fisheries data management systems and sharing arrangements



- Enhance inland fisheries and hatcheries management
- Increase native and game fisheries monitoring
- Support Central Valley, Bay-Delta fisheries monitoring array
- Support delta smelt and salmon resiliency strategy implementation
- Implement a comprehensive salmon and steelhead monitoring program across the actions in the Klamath, Trinity, Central Valley steelhead and salmon and ocean salmon monitoring efforts; integrate monitoring and outcomes into salmon fishery management
- Build and maintain a program for sustainable and integrated water management, fish and wildlife and ecosystem benefits

## 2. IMPROVED HUNTING AND FISHING AND INCREASED PARTICIPATION

### 20% of Funding

- Design, launch and implement permanent program for hunter and angler recruitment, retention and reactivation (R3)
- Implement modern fish husbandry practices at CDFW hatcheries
- Modernize outdated hatchery fish production
- Enhance stocking programs to provide additional fishing opportunities for urban and underserved communities
- Increase and improve hunting and fishing opportunities at CDFW properties
- Improve hunter access to private lands by expanding the Shared Habitat Alliance for Recreational Enhancement (SHARE) and Private Lands Management programs
- Increase communication with hunters and anglers by providing timely information on fishing and hunting opportunities through a variety of channels

## 3. CONNECTING MORE CALIFORNIANS TO THE OUTDOORS

### 20% of Funding

- Complete comprehensive and inclusive land management plans for all CDFW properties
- Increase and improve wildlife related outdoor recreation and other recreational opportunities at key areas
- Encourage increased public use by featuring department lands as public lands for a variety of wildlife-compatible recreational uses
- Develop and implement strategies to diversify users of department lands and cultivate new partners
- Develop new conservation education programs with an emphasis on urban areas and underserved communities and in partnership with NGOs (non-governmental organizations) and others
- Expand outdoor education programs in a variety of settings including classrooms, clinics and interpretive programs related to CDFW lands and in partnership with NGOs and others
- Use improved collaborative approach with partners as a roadmap for deferred maintenance expenditures and overall lands management (see linkage to Senate Bill 5 and Proposition 64)
- Increase communication with outdoor enthusiasts by providing timely information on outdoor recreation opportunities through a variety of channels

## 4. INCREASED STABILITY AND SERVICES

### 30% Percent of Funding

- Take care of wildlife officers, law enforcement and wildlife crimes response
- Develop and implement modern law enforcement dispatch system
- Expand wildlife trafficking enforcement



- Enhance forensics/genetics capabilities
- Conduct additional warden academy per year
- Develop policy and implement horse patrol for wilderness backcountry coverage
- Develop policy and implement drone and other technology innovations
- Develop policy and implement body cameras for wardens
- Because of climate adaptation, modernize CDFW fish health lab facility
- Because of increase in human-wildlife interactions, modernize Wildlife Investigations Lab facility
- Expand capacity to manage and partner with communities regarding human-wildlife interaction related to mountain lions and wolves
- Create a CDFW central call center
- Create a Tribal Engagement Program
- Increase regional public information officers
- Modernize and implement system and programs for CDFW response to human-wildlife conflicts
- Implement a robust Wildlife Watch Program
- Develop and implement transparency and accountability tools for web access
- Implement comprehensive education and training program with key regulatory sectors
- Implement protocol and policy clearinghouse effort to develop simple, clear and consistent governance and permitting practices and processes
- Create a formal partnership office within department to foster and advance collaboration, for example to advance collaborative science relationships with public and private partners
- Fully fund the department's Science Institute
- Increase capacity support for California Fish and Game Commission



# BCP Fiscal Detail Sheet

BCP Title: Sustainable Funding for Fish and Wildlife

BR Name: 3600-016-BCP-2018-GB

## Budget Request Summary

	FY18					
	CY	BY	BY+1	BY+2	BY+3	BY+4
Personal Services						
Positions - Permanent	0.0	98.0	98.0	98.0	98.0	98.0
<b>Total Positions</b>	<b>0.0</b>	<b>98.0</b>	<b>98.0</b>	<b>98.0</b>	<b>98.0</b>	<b>98.0</b>
Salaries and Wages						
Earnings - Permanent	0	6,951	6,951	6,951	6,951	6,951
<b>Total Salaries and Wages</b>	<b>\$0</b>	<b>\$6,951</b>	<b>\$6,951</b>	<b>\$6,951</b>	<b>\$6,951</b>	<b>\$6,951</b>
Total Staff Benefits	0	3,850	3,850	3,850	3,850	3,850
<b>Total Personal Services</b>	<b>\$0</b>	<b>\$10,801</b>	<b>\$10,801</b>	<b>\$10,801</b>	<b>\$10,801</b>	<b>\$10,801</b>
Operating Expenses and Equipment						
5301 - General Expense	0	1,427	1,427	1,427	1,427	1,427
5342 - Departmental Services	0	5,846	5,846	5,846	5,846	5,846
539X - Other	0	12,909	12,909	12,909	12,909	12,909
<b>Total Operating Expenses and Equipment</b>	<b>\$0</b>	<b>\$20,182</b>	<b>\$20,182</b>	<b>\$20,182</b>	<b>\$20,182</b>	<b>\$20,182</b>
<b>Total Budget Request</b>	<b>\$0</b>	<b>\$30,983</b>	<b>\$30,983</b>	<b>\$30,983</b>	<b>\$30,983</b>	<b>\$30,983</b>

## Fund Summary

Fund Source - State Operations						
0001 - General Fund	0	6,567	6,567	6,567	6,567	6,567
0044 - Motor Vehicle Account, State Transportation Fund	0	18,000	18,000	18,000	18,000	18,000
0200 - Fish and Game Preservation Fund	0	6,416	6,416	6,416	6,416	6,416
<b>Total State Operations Expenditures</b>	<b>\$0</b>	<b>\$30,983</b>	<b>\$30,983</b>	<b>\$30,983</b>	<b>\$30,983</b>	<b>\$30,983</b>
<b>Total All Funds</b>	<b>\$0</b>	<b>\$30,983</b>	<b>\$30,983</b>	<b>\$30,983</b>	<b>\$30,983</b>	<b>\$30,983</b>

## Program Summary

Program Funding						
2590 - Biodiversity Conservation Program	0	21,993	21,993	21,993	21,993	21,993
2605 - Enforcement	0	8,990	8,990	8,990	8,990	8,990
9900100 - Administration	0	1,550	1,550	1,550	1,550	1,550
9900200 - Administration - Distributed	0	-1,550	-1,550	-1,550	-1,550	-1,550
<b>Total All Programs</b>	<b>\$0</b>	<b>\$30,983</b>	<b>\$30,983</b>	<b>\$30,983</b>	<b>\$30,983</b>	<b>\$30,983</b>



**Personal Services Details**

Positions		Salary Information			<u>CY</u>	<u>BY</u>	<u>BY+1</u>	<u>BY+2</u>	<u>BY+3</u>	<u>BY+4</u>
		Min	Mid	Max						
0762	- Environmental Scientist (Eff. 07-01-2018)				0.0	20.0	20.0	20.0	20.0	20.0
0764	- Sr Envirnal Scientist (Supvry) (Eff. 07-01-2018)				0.0	17.0	17.0	17.0	17.0	17.0
0765	- Sr Envirnal Scientist (Spec) (Eff. 07-01-2018)				0.0	30.0	30.0	30.0	30.0	30.0
1312	- Staff Info Sys Analyst (Spec) (Eff. 07-01-2018)				0.0	1.0	1.0	1.0	1.0	1.0
1340	- Sr Info Sys Analyst (Supvr) (Eff. 07-01-2018)				0.0	1.0	1.0	1.0	1.0	1.0
1581	- Staff Programmer Analyst (Spec) (Eff. 07-01-2018)				0.0	2.0	2.0	2.0	2.0	2.0
4588	- Assoc Accounting Analyst (Eff. 07-01-2018)				0.0	3.0	3.0	3.0	3.0	3.0
5142	- Assoc Pers Analyst (Eff. 07-01-2018)				0.0	3.0	3.0	3.0	3.0	3.0
5157	- Staff Svcs Analyst (Gen) (Eff. 07-01-2018)				0.0	1.0	1.0	1.0	1.0	1.0
5393	- Assoc Govtl Program Analyst (Eff. 07-01-2018)				0.0	2.0	2.0	2.0	2.0	2.0
5599	- Research Scientist III (Eff. 07-01-2018)				0.0	1.0	1.0	1.0	1.0	1.0
5731	- Research Analyst II (Eff. 07-01-2018)				0.0	1.0	1.0	1.0	1.0	1.0
6989	- Motor Vessel Engr (Eff. 07-01-2018)				0.0	1.0	1.0	1.0	1.0	1.0
8412	- Capt (Eff. 07-01-2018)				0.0	1.0	1.0	1.0	1.0	1.0
8418	- Lieut (Supvr) (Eff. 07-01-2018)				0.0	2.0	2.0	2.0	2.0	2.0
8421	- Warden (Eff. 07-01-2018)				0.0	12.0	12.0	12.0	12.0	12.0
<b>Total Positions</b>					<b>0.0</b>	<b>98.0</b>	<b>98.0</b>	<b>98.0</b>	<b>98.0</b>	<b>98.0</b>

Salaries and Wages		<u>CY</u>	<u>BY</u>	<u>BY+1</u>	<u>BY+2</u>	<u>BY+3</u>	<u>BY+4</u>
0762	- Environmental Scientist (Eff. 07-01-2018)	0	1,132	1,132	1,132	1,132	1,132
0764	- Sr Envirnal Scientist (Supvry) (Eff. 07-01-2018)	0	1,790	1,790	1,790	1,790	1,790
0765	- Sr Envirnal Scientist (Spec) (Eff. 07-01-2018)	0	1,991	1,991	1,991	1,991	1,991



1312	-	Staff Info Sys Analyst (Spec) (Eff. 07-01-2018)	0	77	77	77	77	77
1340	-	Sr Info Sys Analyst (Supvr) (Eff. 07-01-2018)	0	91	91	91	91	91
1581	-	Staff Programmer Analyst (Spec) (Eff. 07-01-2018)	0	153	153	153	153	153
4588	-	Assoc Accounting Analyst (Eff. 07-01-2018)	0	204	204	204	204	204
5142	-	Assoc Pers Analyst (Eff. 07-01-2018)	0	195	195	195	195	195
5157	-	Staff Svcs Analyst (Gen) (Eff. 07-01-2018)	0	49	49	49	49	49
5393	-	Assoc Govtl Program Analyst (Eff. 07-01-2018)	0	130	130	130	130	130
5599	-	Research Scientist III (Eff. 07-01-2018)	0	89	89	89	89	89
5731	-	Research Analyst II (Eff. 07-01-2018)	0	68	68	68	68	68
6989	-	Motor Vessel Engr (Eff. 07-01-2018)	0	46	46	46	46	46
8412	-	Capt (Eff. 07-01-2018)	0	86	86	86	86	86
8418	-	Lieut (Supvr) (Eff. 07-01-2018)	0	150	150	150	150	150
8421	-	Warden (Eff. 07-01-2018)	0	700	700	700	700	700
<b>Total Salaries and Wages</b>			<b>\$0</b>	<b>\$6,951</b>	<b>\$6,951</b>	<b>\$6,951</b>	<b>\$6,951</b>	<b>\$6,951</b>
Staff Benefits								
5150600	-	Retirement - General	0	2,121	2,121	2,121	2,121	2,121
5150900	-	Staff Benefits - Other	0	1,729	1,729	1,729	1,729	1,729
<b>Total Staff Benefits</b>			<b>\$0</b>	<b>\$3,850</b>	<b>\$3,850</b>	<b>\$3,850</b>	<b>\$3,850</b>	<b>\$3,850</b>
<b>Total Personal Services</b>			<b>\$0</b>	<b>\$10,801</b>	<b>\$10,801</b>	<b>\$10,801</b>	<b>\$10,801</b>	<b>\$10,801</b>



## BCP Fiscal Detail Sheet

**BCP Title: Sustainable Funding for Fish and Wildlife**

BR Name: 3110-002-BCP-2018-GB

## Budget Request Summary

	FY18				
CY	BY	BY+1	BY+2	BY+3	BY+4

## Fund Summary

Fund Source - Local Assistance

0001 - General Fund

0

-3,998

-3,998

-3,998

-3,998

-3,998

0140 - California Environmental License Plate Fund

0

3,998

3,998

3,998

3,998

3,998

### Total Local Assistance Expenditures

**\$0**

**\$0**

**\$0**

**\$0**

**\$0**

**\$0**

## Program Summary

## Program Funding

### Total All Programs

**\$0**

**\$0**

**\$0**

**\$0**

**\$0**

**\$0**



# BCP Fiscal Detail Sheet

BCP Title: Sustainable Funding for Fish and Wildlife

BR Name: 3900-019-BCP-2018-GB

## Budget Request Summary

	FY18					
	CY	BY	BY+1	BY+2	BY+3	BY+4
Operating Expenses and Equipment						
54XX - Special Items of Expense	0	-26,000	-26,000	-26,000	-26,000	-26,000
<b>Total Operating Expenses and Equipment</b>	<b>\$0</b>	<b>\$-26,000</b>	<b>\$-26,000</b>	<b>\$-26,000</b>	<b>\$-26,000</b>	<b>\$-26,000</b>
<b>Total Budget Request</b>	<b>\$0</b>	<b>\$-26,000</b>	<b>\$-26,000</b>	<b>\$-26,000</b>	<b>\$-26,000</b>	<b>\$-26,000</b>

## Fund Summary

Fund Source - Local Assistance

0115 - Air Pollution Control Fund

	0	-26,000	-26,000	-26,000	-26,000	-26,000
<b>Total Local Assistance Expenditures</b>	<b>\$0</b>	<b>\$-26,000</b>	<b>\$-26,000</b>	<b>\$-26,000</b>	<b>\$-26,000</b>	<b>\$-26,000</b>
<b>Total All Funds</b>	<b>\$0</b>	<b>\$-26,000</b>	<b>\$-26,000</b>	<b>\$-26,000</b>	<b>\$-26,000</b>	<b>\$-26,000</b>

## Program Summary

Program Funding

3515 - Subvention

	0	-26,000	-26,000	-26,000	-26,000	-26,000
<b>Total All Programs</b>	<b>\$0</b>	<b>\$-26,000</b>	<b>\$-26,000</b>	<b>\$-26,000</b>	<b>\$-26,000</b>	<b>\$-26,000</b>



## BCP Fiscal Detail Sheet

**BCP Title: Sustainable Funding for Fish and Wildlife**

BR Name: 3940-028-BCP-2018-GB

## Budget Request Summary

		FY18			
CY	BY	BY+1	BY+2	BY+3	BY+4

## Fund Summary

Fund Source - State Operations

0001 - General Fund

0140 - California Environmental License Plate Fund

### Total State Operations Expenditures

0	-2,569	-2,569	-2,569	-2,569	-2,569
0	2,569	2,569	2,569	2,569	2,569
<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

## Program Summary

## Program Funding

### Total All Programs

\$0	\$0	\$0	\$0	\$0	\$0
-----	-----	-----	-----	-----	-----